

ROUNDUP

Lyndon B. Johnson
Space Center

NASA

August 24, 1979 Houston, Texas

Vol. 18, No. 17

Enterprise draws crowds on its final tour of skies

The Space Shuttle Enterprise returned to Dryden Flight Research Center in California August 16, following a six-day trip from Kennedy Space Center, mated to its 747 Shuttle Carrier Aircraft.

Three quarters of a million (750,000) people swarmed into airport areas for the six stopovers—Atlanta, St. Louis, Tulsa, Denver, Salt Lake City, and Vandenberg AFB—to get a closer look at the prototype of the nation's first reusable spacecraft.

Donald "Deke" Slayton, NASA's program manager for Shuttle Flight Test Operations, flew the T-38 chase plane accompanying the Enterprise, and was chief spokesman for the Shuttle program during press interviews.

Slayton shared the debriefings with

the 747 crews from both Dryden and JSC. Chief pilot Joe Algranti, and pilots A. J. Roy, Ken Haugen, and Dick Scobee, with engineers Skip Guidry and Vince Alvarez, were the JSC crews.

At each of the 24-hour stopovers, the Enterprise was a two-day, front-page story in area newspapers, and the lead story on TV newscasts and radio reports.

Principal reason for scheduling six stopovers was to allow employees of Shuttle contractors to view the craft for the first time.

Enterprise, OV-101, which was used during Approach and Landing Tests in 1977, will not fly in space. But various parts of it may be used in construction of future orbiters.

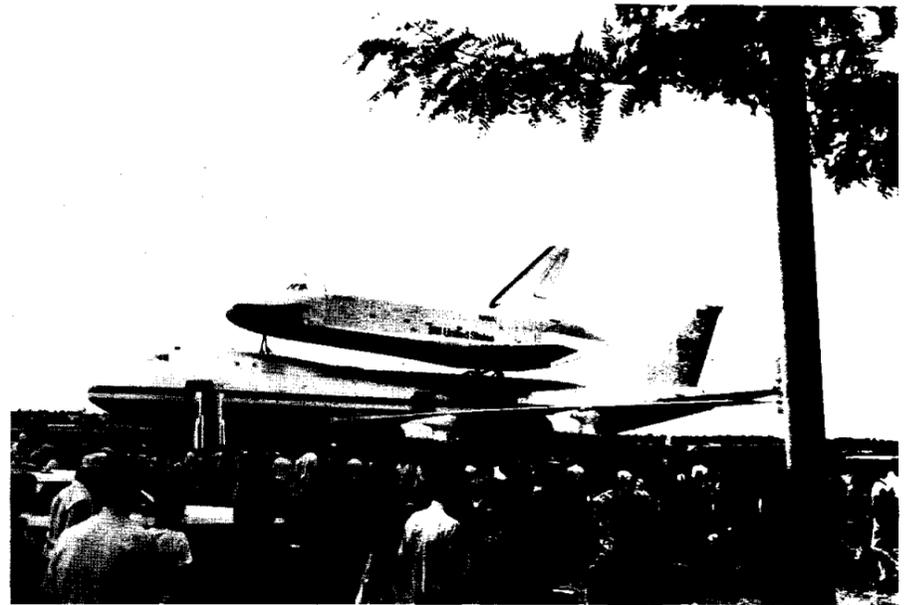


Photo courtesy of Rockwell International

The Tulsa stopover; a last look at OV-101

Charlesworth is new deputy

Clifford E. Charlesworth has been named acting Deputy Director for JSC effective August 10. Charlesworth replaces Sigurd A. Sjoberg, who retired May 18.

Charlesworth left his post as deputy manager, Shuttle Payload Integration and Development Program Office, where he has been for the past three years. As deputy manager of SPIDPO, Charlesworth was responsible for the coordination between Space Shuttle users and the Space Shuttle technical management here at JSC.

Prior to his SPIDPO assignment, Charlesworth, 48, was manager of the Earth Resources Program Office at JSC. ERPO was the NASA lead office for the development and application of Earth resources information. From 1970 through 1972 Charlesworth was deputy manager for the Skylab program.

Charlesworth joined NASA in Houston in 1962 as a flight controller. He served as a flight director for the Gemini and



Clifford E. Charlesworth

Apollo missions and was one of the flight directors for the Apollo 11 mission, the first to land men on the Moon, 1969.

He holds a bachelor of science degree in physics from Mississippi College.

Charlesworth and his wife, Jewell, have a son, David, 18, and a daughter, Leslie Ann, 16. They live in Friendswood, Texas.

Pioneer 11 views Saturn in September

The first spacecraft to Saturn, Pioneer 11, is approaching the ringed planet, and will make its closest encounter on September 1, 1979.

Systems aboard NASA's Pioneer Saturn continue to work well—after an epic journey through the outer Solar System, covering six and a half years and over two billion miles.

The Pioneer is somewhat battered by radiation but unbowed, report controllers at Ames Research Center in California.

Pioneer Saturn will send back 50 closeup pictures of the planet and of the moon, Titan, which is probably the largest planetary satellite in the Solar System. The spacecraft will study Saturn's atmosphere and make observations of a number of its 10 moons.

The craft will pass 34,600 km (21,500 mi) outside the edge of Saturn's outer ring and then skim in under the rings, from 2000 to 10,000 km (1200 to 6200 mi) below them. At the point of closest



Ames theme art

approach, on the planet's night side, Pioneer will come within 21,400 km (13,300 mi) of Saturn's banded cloud tops.

Most hazardous moment will be September 1, when Pioneer will pass at 53,000 mph through the plane of Saturn's

rings at a very shallow angle (4.7 degrees) on its descent toward the planet. Some planetary debris is almost certainly present in Saturn's ring plane, outside the visible rings. An impact with a fragment could destroy the spacecraft.

Ring plane passage will take about .8

second. Then for an hour and 20 minutes Pioneer will make the historic first flight under Saturn's rings.

On September 2, Pioneer will reach the giant moon, Titan, at 356,000 km

second. Then for an hour and 20 minutes Pioneer will make the historic first flight under Saturn's rings.

On September 2, Pioneer will reach the giant moon, Titan, at 356,000 km

second. Then for an hour and 20 minutes Pioneer will make the historic first flight under Saturn's rings.

On September 2, Pioneer will reach the giant moon, Titan, at 356,000 km

Continued on Page 4

What's cookin'

Week of August 27 - 31

MONDAY: French Onion Soup; Beef Chop Suey; Polish Sausage w/German Potato Salad; Breaded Veal Cutlet (Special); Okra & Tomatoes; Green Peas. Standard Daily Items; Roast Beef; Baked Ham; Fried Chicken; Fried Fish; Chopped Sirloin; Selection of Salads, Sandwiches and Pies.

TUESDAY: Split Pea Soup; Shrimp Creole; Salisbury Steak; 8 oz T-Bone Steak; Fried Chicken (Special); Mixed Vegetables; Beets, Whipped Potatoes.

WEDNESDAY: Clam Chowder, Fried Catfish w/hush puppies; Braised Beef Ribs; BBQ Plate; Weiners & Beans; Shrimp Salad; Stuffed Bell Pepper (Special); Corn O'Brian; Italian Green Beans; Rice.

THURSDAY: Chicken Noodle Soup; Beef Stroganoff; Turkey & Dressing; BBQ Smoked Link (Special); Lima Beans; Buttered squash; Spanish rice.

FRIDAY: Seafood Gumbo; Broiled Fish; Liver w/onions; Seafood Platter; Fried Shrimp; Meat Sauce & spaghetti (Special); Green Beans; Buttered Broccoli; Whipped Potatoes.

Week of September 3 - 7

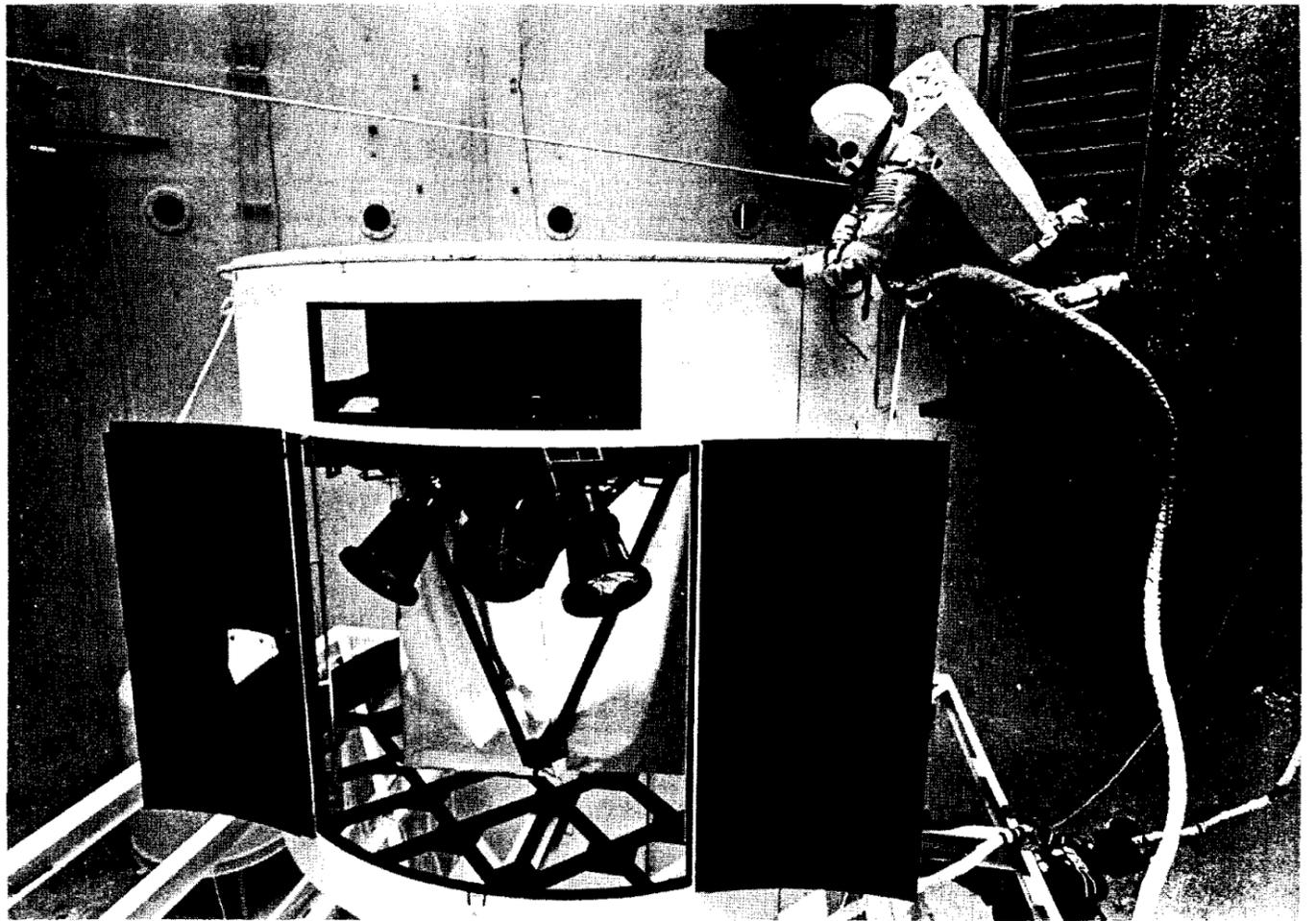
MONDAY: Holiday

TUESDAY: Celery Soup; Frito Pie; Turkey a la King; Pork Chop w/applesauce; Chinese Pepper Steak (Special); Au Gratin Potatoes, Breaded Squash; Buttered Spinach.

WEDNESDAY: Clam Chowder, Fried Catfish w/hush puppies; Braised Beef Ribs; Mexican Dinner (Special); Spanish Rice; Ranch Beans; Buttered Peas.

THURSDAY: Green Pea Soup; Corned Beef w/cabbage & New Potatoes; Chicken & Dumplings; Tamales w/chili; Hamburger Steak w/onion gravy (Special); Navy Beans; Buttered Cabbage; Green Beans.

FRIDAY: Seafood Gumbo; Deviled Crabs; Broiled Halibut; Liver & Onions; BBQ Link (Special); Breaded Squash; Green Beans; Corn; New Potatoes.



Astronaut Bruce McCandless tests methods and equipment that might be used to service the Space Telescope in Earth orbit in the neutral buoyancy tank at Marshall. McCandless is test-

ing the difficulty of unlatching a door to the telescope's star trackers and other components, and determining the best type and location for foot restraints and hand-holds.

Efficiency and pride July's secretary is a leader and organizer

Ruth Hollen has been a secretary in the Personnel Office since 1976; she became division secretary in 1978. Since then the clerical workload in Personnel has multiplied, with enactment of the Civil Service Reform Act and other personnel-related legislation.

Hollen has shown "a capacity to handle heavy workloads under stringent time restraints," says supervisor Jack Lister.

"Upon enactment of the Civil Service Reform Act, NASA established three separate Agency Task Forces for its implementation," he said, which added a large administrative load to the Personnel Office.

"Mrs. Hollen prepared extensive study documents on short notice, provided visual aids for presentations to other organizations, and handled frequent and complex travel arrangements incidental



Ruth Hollen
Outstanding Secretary

to the effort," Lister said. "While carrying out this myriad of additional duties, she still provided for the efficient flow of nor-

mal administrative actions for the office."

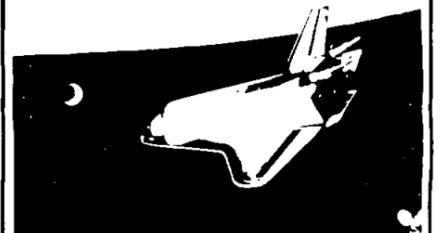
Clerical workers in Personnel have frequent contacts with the public and other personnel, a large amount of formal and informal procedures to carry out, and frequent and important deadlines to be met.

In addition, Hollen, as division secretary, leads the other secretaries in the division. "Using a non-authoritative attitude, she has very effectively utilized her excellent knowledge of human relations to make the secretarial work force a more cohesive, compatible group," Lister said.

"Mrs. Hollen has consistently provided that special 'image' to all who contact this office: an eagerness to assist and advise," Lister said.

Her efficiency, enthusiasm, ability, and pride have earned her the Outstanding Secretary award for July.

Roundup deadline is the first Wednesday after publication.



The Roundup is an official publication of the National Aeronautics and Space Administration Lyndon B. Johnson Space Center, Houston, Texas, and is published every other Friday by the Public Affairs Office for all Space Center employees.

Writer/Editor: Kay Ebeling

Schweickart movin' on up

Russel L. (Rusty) Schweickart has been named chairman of the Energy Commission for the State of California.

He resigned from NASA effective July 30 to accept a seat on the State Energy Resources Conservation and Development Commission, the body charged with planning and regulating California's energy system.

In action Saturday, August 18, Governor Jerry Brown named the former astronaut to chair the commission.

Schweickart came to NASA in the third astronaut selection in 1963 and flew the first lunar module on Apollo 9 in 1969. In 1973, he served as commander of the backup crew for the first Skylab mission.

He then moved to Headquarters where his job was to focus on the use of space for solving terrestrial problems.

Schweickart was detailed to the State of California under the Intergovernmental Personnel Act in September 1977 to serve as Assistant to the Governor for Science and Technology. In this position, he advised the Governor and his staff on issues related to science and technology, and he employed his experience in high technology systems for application of new technologies to the State's needs.

LET'S STOP **HORSIN'**
AROUND . .



BY SENDING A COST REDUCTION REPORT ON A JSC FORM 1150 TO COST REDUCTION OFFICE BG-3 NOW!

Cartoon by Russ Byther

Plan ahead

August through October is peak hurricane season

When a hurricane threatens, it's too late to start making preparations. Plan ahead! Check your supply of nonperishable foods, batteries, boards, tape, tools and other items and equipment that may be needed should a hurricane strike. When you hear the first tropical cyclone advisory, listen for follow-up broadcasts and keep informed of the storm's position and progress.

When your area receives a hurricane warning:

- Fill your automobile's gas tank and keep it full during the emergency period.

- Board up windows or protect them with storm shutters, tape, etc.

- Check battery-powered equipment (flashlights, radios, etc.) and make sure that all batteries are fresh.

- Moor your boat securely before the storm arrives or evacuate it.
- Remain indoors if your home is sturdy and on reasonably high ground.

- If you plan to ride out the storm at home, store drinking water in clean bathtubs, jugs, bottles, etc. The regular water supply could become contaminated by flooding. Assure that an adequate supply of non-perishable food is on hand.

- Leave low-lying areas that may be swept by high tides, storm waves and flooding.

- Leave mobile homes for more substantial shelter.

- Be prepared to evacuate immediately, if directed. Plan ahead where you will go should such action become necessary.

- Don't panic. Remain calm and keep informed by television or radio.

Bulletin Board

Please limit announcements to 10 lines, double-spaced copy

Do You Remember The Sock Hop?

Do you remember the Jitterbug, the Twist, and the Stroll? You're gonna love the EAA's 1979 Nostalgia Night Dinner/Dance! It's gonna be September 22 at the Gilruth Center Gym (remember Sock Hops?). The doors will open at 7 p.m., a delicious veal cutlet dinner will be served 8 to 9 pm, and from 9 until 1 am you can stroll MEMORY LANE, or TWIST down REMINISCENCE ROAD. There will be a door prize given away as well as a dance contest and a Hula-Hoop contest.

The price is \$7 per person which includes EVERYTHING! Tickets will go on sale in the building 11 cafeteria soon, but the deadline to buy tickets is September 17, so don't forget that date.

NSA Sponsors

Review Course for Secretaries

The National Secretaries Association jointly with the University of Houston at Clear Lake City will sponsor a certified professional secretary review course starting August 30, each Thursday through April 10. The classes will be from 6:15 to 9:00 in the UH/CLC Executive Development Suite.

The \$60 registration fee covers 15 classes in the Fall Semester, handouts, and parking. Registration is now open, and for additional information call Joye Osborn, Ford-Aerospace, 486-6457 or 488-0285 after 5:00.

Space City Automotive Associates Meeting

The Space City Automotive Associates will begin its '79-80 year with a meeting at the Gilruth Recreation Facility (Room 215) at 5:15 pm on September 11. Business to be conducted includes the election of officers and a general outlining of the year's activities. This will be followed by a presentation and general discussion of a selected area of automotive maintenance. The club is open to all individuals interested in automotive repair, maintenance, and/or restoration. Further information can be obtained by calling FM17/Robert Stanley at 483-6181.

Introductory Ballroom Dance Classes

There will be an Introductory, Phase I, dance class starting September 12, in Room 204 of the Gilruth Recreation Center. The course includes 10 lessons of ballroom dancing each Wednesday night from 6:45 to 8:15. Cost of the 10-week session is \$40 a couple. Intermediate classes and an advanced class will continue each Wednesday night. Bob and Rae Calvert are the talented instructors for these courses. Interested persons should contact Lytle Jiongo, x-3445

Start Practicing Your Swing

The JSC Tennis Club open singles tournament will be held September 22, 23, and 24, at Bay Area Racquet Club. Events will be open to both members and non-members. Contact Stuart Lenett at x-2128 for more information.

CHECK ONE

I am a New Subscriber I am a 78-79 Subscriber

Your Organization Name _____

Your Name _____

Your Address _____

Apt. No. _____

City _____

State _____

Zip _____

Phone: Home _____

Office _____

I wish to order _____

Corporate Coupon Subscriptions at \$24.50 each.

Total Cost of Order \$ _____

For Office Use Only

Co. _____

#s _____

Dep. _____

Date Recd. — Person
— Phone
— Mail

FULL PAYMENT ENCLOSED:

- Check
 Cash
 Money Order

EIGHT EASY WAYS YOU MAY CHARGE:

- JOSKE'S
 SAKOWITZ
 BATTELSTEIN'S
 FOLEY'S
 MASTER CHARGE
 BANKAMERICARD (VISA)
 SHOPPER'S CHARGE
 AMERICAN EXPRESS

Fill in # _____

Credit Card or Account Number — Expiration Date

IMPORTANT: If your order includes subscribers other than yourself please attach a list of their names and addresses so that they will receive all special announcements throughout the season.

PLEASE NOTE: No refunds on season tickets and no refunds on individual coupons.

Alley Theatre Subscriptions

Available Through September 14

Fill out this handy order form. Clip it and send it to Doris Wood, EF1 (x-2161) for Corporate Coupon Subscriptions to the Alley Theatre. For \$24.50 you receive coupons good for five plays, your choice of performance. You phone in your reservations for the date of your choice and

you will be given the best ticket available at the time the reservation is made, regardless of price. The 1979/80 season begins October 18, but the deadline for subscriptions through JSC is September 14. Your checks will not be cashed or credit cards charged until after September 15.

Burrito King

Captures Tourney Title

The Buenos used some heavy hitting and steady defense to win the JSC post-season competitive league softball championship. They started things off with a 7-3 victory over McDonnell Douglas. In the second game they had a dramatic come-from-behind victory over CSC (12-9). That second game featured five home runs by Mark Truitt (two) Morris

Williams, Lewis Little, and Charles Cones. The sixth and final game against the Miller Freeman Mets featured the clutch hitting and pitching of Leon "Long Gone" Jenkins. Other team members are V. Laver, J. Budahj, C. Svedacor, D. Northier, J. Price, C. Haynes, J. Murphy, and E. Rogers.

Roundup deadline is the first Wednesday after publication.

Roundup Swap Shop

Miscellaneous

Zane Grey novels, 63 volumes, two-ton with hard cover binding, like new, \$250. 485-2385.

Water pump, 3 Hsp, gasoline powered, \$50. Mary Turpin x4426 or 944-8201.

For TV or HAM, one Allied rototenna motor and control and one CDE antenna rotor (TRA-4) and control (AR-22R). All offers considered. Eggleston x5584.

Plate block collector disposing collection at drastically reduced price starting at 10% above face value. Jeff x7429.

Tires, two used Firestone 500 HR 78-15, good for trailer or spare, \$5 each or both for \$8. 333-3071.

Collins radio KWM-2, 30L1 Linear, Swan 500C recently factory reconditioned. 334-3396 eves.

McGregor golf clubs, 2 thru 9 irons, 1,3,4 woods; golf bag; old but usable cart, \$85. Dean x2521 or 482-7138 after 5.

4x6 covered utility trailer, spare tire, single axle, all lighting hookups, \$200. J. T. x6204 or 488-0107 after 5.

12 Dyan Floppy diskettes, brand new, double density, double sided, hard sector, \$4 each or best offer. 482-4744 after 5.

Utility trailer for rent, haul wood, trash, furniture, etc., \$5/day, \$25/week. Tex Ward x2651.

Kenmore gas dryer, \$50; Tape recorder, \$25. Lapko x3054 or 946-4311.

Three windows, 32 by 60 inches, \$20 each; Solid exterior door, 32 inches, \$40; Pool table light, \$60. 488-2652.

Oak seedlings, grown from acorns sprouted in yard, 1 month to 1-1/2 years old, pay cost of planting material. Merriam 488-3806.

Air hockey table 5'x4' exc cond., \$50 or best offer. Craig 334-1628.

Cars & Trucks

75 Buick LeSabre, clean, good cond, AM/FM, a/c, \$1450. M. Stovall x4724 or 474-4877 after 5.

72 Chevelle Wagon, V-8, PS, PB, a/c, auto, radio, reg gas, 86,000 miles, exc cond, \$950. Armstrong x6471 or 333-3279 after 5.

73 Dodge Club Can PU w/Gem top cover. Cornelius x4239 or 428-2952 after 6.

75 Cutlass Salon fully equipped, exc shape, not flooded, \$2750. 488-6369.

72 Pontiac Lemans SW, rebuilt trans, cold air, R & H, good tires and interior, \$995. Peters x2796.

73 Chevelle SW, V-8, PS, PB, automatic, very good cond. Brenton x2731 or 488-4372.

73 Ford 1/2 ton PU, power steering, power brakes, V-8, manual shift, \$950. 482-7546.

76 Pontiac Lemans, 2-dr, 350 V-9 air, AM/FM, steel radials, 25000 act miles, exc cond. Gill 334-2870.

77 Camaro, 305, T-top, black on black, a/c, pb, ps, am/fm/8-track, low mileage, moving out of town. 482-7715 after 5:30.

78 Jeep, Golden Eagle, air, auto, exc cond, loaded, 18,000 miles, 479-0979 between 6am - 4 pm Tues.-Sat.

Carpools

Carpool between Sagemeadow and JSC. Art Reubens x2450 or 481-3433.

Need a 4th carpooler, we meet at Fuqua near the Gulf Freeway, 8-4:30. Paula or Tom x4660.

Need additional carpoolers (102) from 610 South Loop East and Long Drive (Target area) to JSC, 8-4:30. Non-smokers only, please. Kathryn x4660.

Need ride from Brentwood Terrace apts to JSC. Beth Winchell x2391 or 334-2875.

Personals

Square dance lessons in Friendswood starting Sept 8, 7-8:30 pm every Saturday. Lonnie Condieff x2051 or 334-2305.

Cycles

Boys 24" 10-speed bicycle, good cond., \$35. Paul 334-1437.

71 Honda SL-100, does not run, needs engine overhaul. Doherty x3821 or 488-0182.

78 YZ 250 bought in April 79, never raced, great cond, \$1400 with accessories or best offer. Craig 334-1628.

Ads should be under 20 words, double spaced, typed or printed, one ad per person. Deadline for submitting or cancelling ads is 5:00 p.m. the first Wednesday after publication. Send ads to AP3 Roundup, or deliver them to the Newsroom, Building 2 annex. No phone-ins, please. Swap Shop is open to JSC federal and on-site contractor employees for non-commercial personal ads. Goods or services must be offered as advertised without regard to race, religion, sex, or national origin.

Property & Rentals

Lomax near San Jacinto College, 2-yr old, 2-story brick, 3-2-2A, \$425/month + \$350 deposit. 488-4394.

Bolivar beach house overlooking Gulf of Mexico, \$35/daily, special weekly rate. Horton x3734.

3-bdrm house for lease, \$275/month, five minutes from NASA. Horton x3734.

Galveston West End, 2-bdrm, By-the-Sea condo apt, full furn. \$210/week off season, \$280/week in season. Clements 474-2622.

Hunting lease: 150 acres Panola County. Crain x5803 or 946-4458.

2 lots, Camelot Forest, at Sargent on New Caney Creek, fishing, boating, camping. Walker x5834.

Rent: Lake Livingston retreat, 3-bdrm, waterfront large wooded lot all people comforts. Jerry x4207 or 554-6093.

Vacation Lake Livingston Cape Royale. Enjoy charming custom 3-2-1 compl furn home nestled among trees, rent wk/mo/yr. 488-4487.

Rent: waterfront vacation retreat by marina at Cape Royale on Lake Livingston, new 3-bdrm, tennis, pool, golf, boat launch, by week. 488-3746.

Sale: 6th floor luxury condo facing Gulf in Galveston, completely furnished, 2-bdrm, 1 bath, exc tax shelter, 79K. Kessel 482-1330.

Rent: New 4-bdrm waterfront house on Lake Livingston, Westwood Shores, golf, pools, marina, daily or weekly rates. 534-3800.

Household Articles

25" console color TV, approx 10 years old, needs minor work, nice pecan wood cabinet, \$100. Kosmo x6193 or 474-3424.

Mahogany drop-leaf Chippendale desk, \$250; Antique brass wood box, \$85; Duck decoys, \$3 piece; Old print cuts; drop-leaf dining table, \$200. 488-5564.

Dining table, white 48" round with circular base, 4 white swivel chairs with brown cushions, exc cond, \$89. 488-2735.

150 sq. ft. of exc carpet, \$150; blue velvet, queen sofa bed, \$250; custom drapes, \$150. 333-2340.

Trundle bed complete with mattresses, spread and bolsters, desk and chair (contemporary), 3 pieces, \$75. 488-1256 after 5.

Brand new 7'x7' Karastan blue carpeting, exc for area or bathroom rug, make offer. 488-1096.

Space saver for condo/apt; Sears expandable walnut buffet-table, place sets 8, w/6 storable cane-backed chairs, like new. 581-5889 eves.

Wanted

Will buy parts for VW Karmann Ghia. Peters x2796.

Parts for a Yamaha baby grand piano case, can be damaged. Jim x3229.

Olympic size bar, weights, dumbbells and any other accessories. Beverly x2728.

Travel trailer to rent for 1-2 months during flood-caused home repairs. Foster x2931.

Two pedestal-type boat seats, no arms, used, \$25-\$30 each. 643-8170 after 5.

Boats & Planes

32' Trojan Sea Raider Xpress, twin w/fly bridge, exc shape in/out, user n Algeria must sell. Ed x2216 or 334-1177.

77 Searay srv 220 CC, VHF radio, flasher/recorder, compass, teak swim platform, canopy, tandem trailer, low hours, exc cond. 944-5313.

Rent: PA28-Warrior, \$24/hour and C-150, \$15/hour both wet, Houston Gulf Airport. 946-1750.

Searay 22-ft 188 Mercruiser less than 120 hours, tandem trailer. 482-3255 or 482-6178.

Stereos & Cameras

Leica 35mm camera x/50mm lens, make offer. Horton 3734.

AM/FM car stereo, cassette tape deck with dolby, 5-band graphic equalizer, 40-watt amplifier, brand new, still in boxes, \$322. x2920.

Musical Instruments

Trombone, like new, exc cond, Buescher, with school-approved mouthpiece, \$200. Horton x3734.

Slingerland beginners percussion kit, \$150. Gemeinhardt flute, \$100. 486-4108.

Pioneer 11

Continued from Page 1

(200,700 mi). It will photograph and make other measurements of the satellite.

This 3600-mile diameter moon dominates Saturn's satellite family both in diameter and mass, exerting a measurable gravitational force on the bodies in that system.

Titan has a relatively thick atmosphere, and appears to have an internal heat source. Along with Mars, it is considered the most likely place to find life in the Solar System.

Pioneer's 14 experiments will determine whether Saturn has a magnetic field and trapped radiation belts. They will measure the mass of the Saturn system and its satellites, and find the character of Saturn's interior. They will confirm the presence of an internal heat source for Saturn, and determine its magnitude. They will study the temperature distribution, composition, and other properties of the clouds and atmospheres of Saturn and Titan.

Pioneer 11's radio signals, traveling at the speed of light, will take 85 minutes to

reach Earth from Saturn.

After passing Saturn, Pioneer 11 will head out of the Solar System traveling roughly the same direction the Solar System is moving with respect to the local stars in our Galaxy.

Pioneer 10, the spacecraft which approached Jupiter in 1976, crossed the orbit of the planet Uranus on July 11 of this year, and is headed in the direction of the

red star Aldebaran, at the center of the constellation Taurus.

Pioneer 11, identical twin to Pioneer 10, will also head out of the Solar System after its encounter with Saturn.

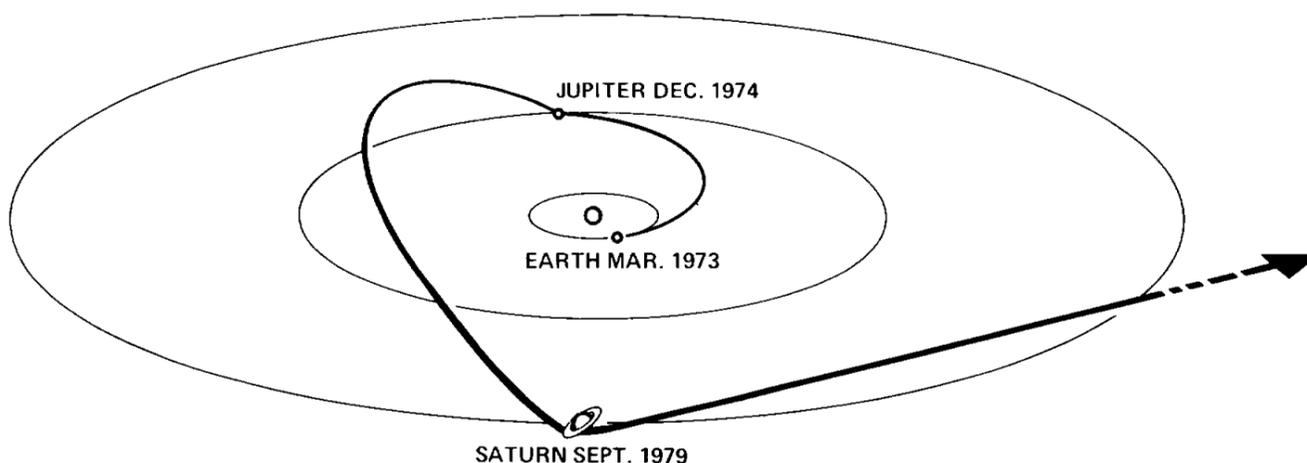
Each Pioneer carries a plaque with a message for any intelligent species that may intercept the spacecraft during their endless journeys through the cosmos.

Once they leave the Solar System, the

spacecraft's radio signals will be too faint to be detected on Earth. The vacuum of space should preserve the Pioneers, but their nuclear power sources will cease to function in a few decades.

Scientists calculate that as they wander through the galaxy, the Pioneers will encounter a star system about once every million years.

PIONEER 11 FLIGHT PATH



NARAM 1979

JSC was host to the National Association of Rocketry Annual Meet August 5 - 11 in the field west of Rocket Park. At the event, the group determined its national winners and selected teams to represent the U.S. in the international competition to be held next year. More than 114 NAR members from as far away as Delaware came to the week long meet. In addition to the numerous launches and flights, members attended seminars conducted by NASA employees: Gus Babb of Mission Planning and Analysis, Richard Underwood of the Photographic Division, and astronaut Hank Hartsfield. Jim Poindexter of Public Affairs coordinated the meet for JSC. "I was very proud of NASA's support during NARAM-21," Poindexter said. "Several NAR trustees expressed their thanks."

Photographer: A. "Pat" Patnesky

